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# Documaster 2.0 - Noark 5 web services

## Goal

The goal of this specification is to:

- Define a minimal set of web services that cover the most popular requirements for integrating with Noark 5 systems
- Allow simple web services clients to be written in various languages to help developers write robust integrations quickly
- Not attempt to standardize things that cannot be standardized by nature

The specification is loosely based on:

- The [Noark 5 version 4 standard](#) and the [Noark 5 extraction schemas](#).
- The [official attempt at defining standard Noark 5 web services](#)

## Facts

- The target users of any web services are developers.
- Developers cannot be expected to know all intricacies of Noark 5 or any similar standard.

## Guiding principles

- Design a Noark 5 web services data model that is easy to understand and hides some of the complexities of Noark 5
- Allow the metadata model to be updated in a backwards-compatible way:
  - Add new object types
  - Add new fields
- Standardize the API for storing and retrieving business-specific metadata (virksomhetsspesifikke metadata)
- Leave authentication and authorization out of the specification
- Allow integration code to be reused while keeping in mind that systems are different and integration code may not work with a new system perfectly without minor modifications
- Allow all Noark 5 vendors to implement these web services

## 01. Archive models

- [Overview](#)
- [Archive model 1](#)
- [Archive model 2](#)
- [Archive model 3](#)

## Overview

This page describes several archive *models* that are based on the *metamodel* defined in [Noark 5 version 4](#).

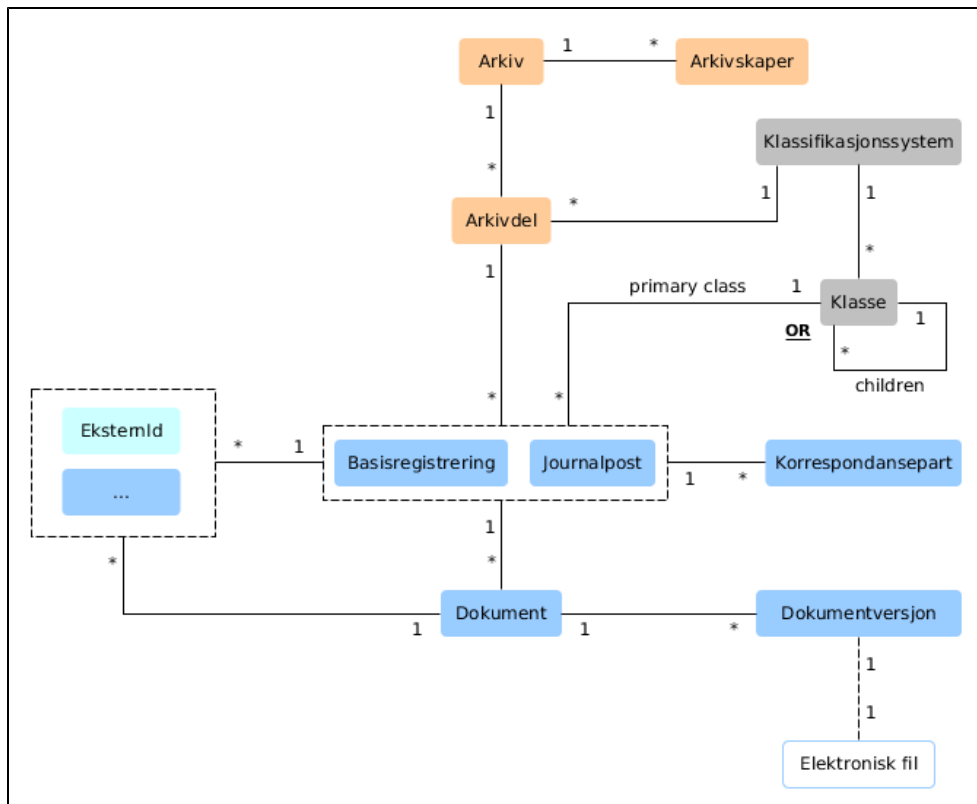
By definition, Noark 5 systems must support at least one of these models and may mix models to allow for more flexible archiving. To archive into a Noark 5 system, you must first select (based on the task at hand) one or more of the archive models supported by the target system.

Note that more archive models may be added to this specification and existing models may be updated. Such changes will attempt to maintain **backwards-compatibility**.

Details for all object types included in the archive models can be found [here](#).

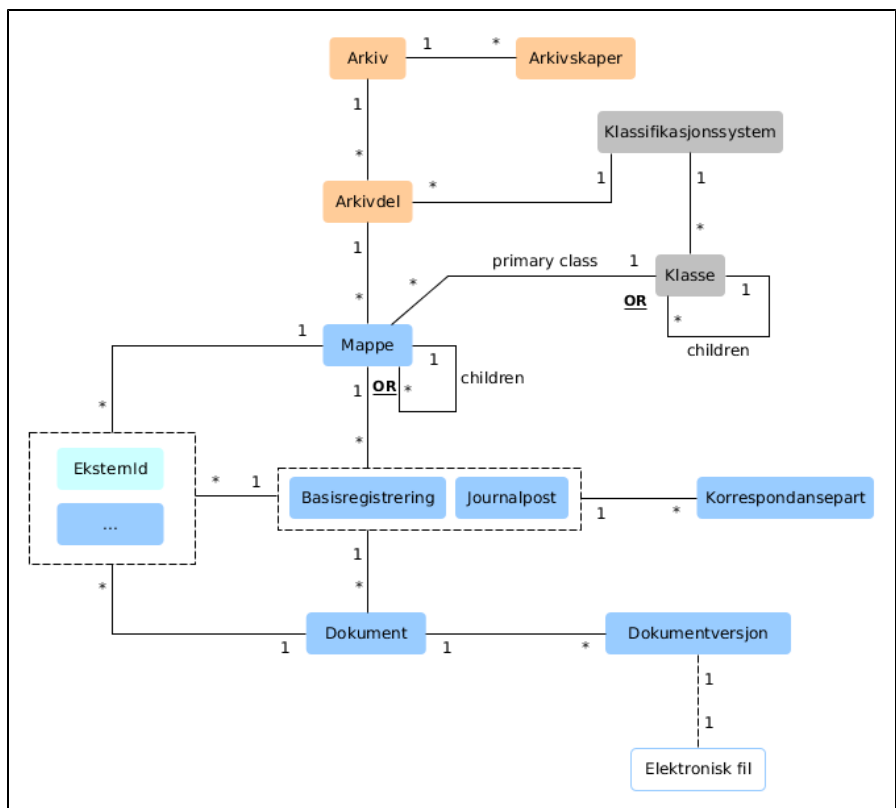
## Archive model 1

- Suitable for archiving documents that do not require grouping in folders
- Suitable for archiving incoming/outgoing communication where the documents do not require grouping in folders
- Classification of records is optional but recommended



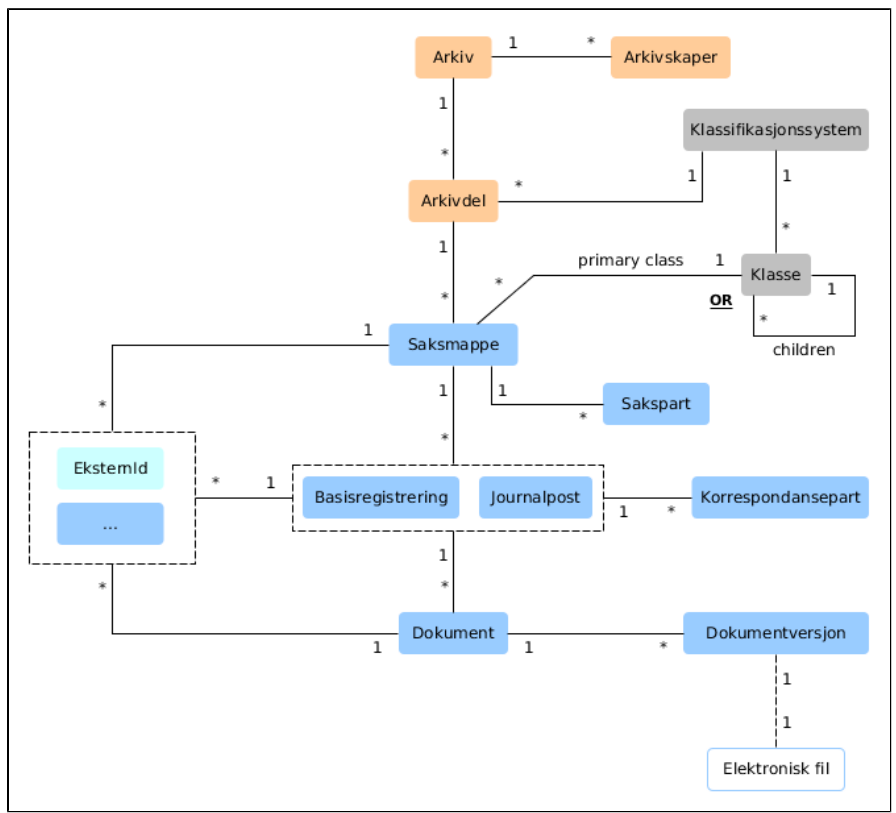
## Archive model 2

- Suitable for archiving documents that require grouping in folders
  - Folders must be used wisely, e.g. to group documents related to the same project, person, etc.
  - It is strongly discouraged to nest multiple levels of folders. Use classification instead!
- Suitable for digitizing historic case files
- Classification is optional but recommended



### Archive model 3

- Suitable for archiving incoming/outgoing communication in case files along with other documents
- Classification is mandatory



## 02. Object types

- Overview
  - Field types
  - Notation
- Archives and sections
  - Arkiv
  - Arkivskaper
  - Arkivdel
- Classification
  - Klassifikasjonssystem
  - Klasse
- Folders
  - Mappe
  - Saksmappe
  - Sakspart
- Records
  - Basisregistrering
  - Journalpost
  - Korrespondansepart
- Documents
  - Dokument
  - Dokumentversjon
- Other
  - EksternId
- Advanced

### Overview

This page describes the object types supported by the Noark 5 archive models.

### Field types

The fields for each object type are separated into three groups:

- **Special fields**
  - Fields that uniquely identify an object and its version within the system
  - The unique identifier of an object can be used to query for that object
- **Regular fields**
  - String, date, number, and boolean fields that generally can be saved, viewed, and queried
  - A date field can contain either a date or a timestamp. This is system-dependent.
  - Field numbers from the [Noark 5 version 4 metadata catalog](#) are provided here to allow you to more easily find information about a specific field test
    - Field names in this specification may differ slightly from those in the Noark standard. The goal is to provide better naming than the one used in the standard.
    - This specification includes fields that are not a part of the Noark 5 specification but should have been included there.
- **Reference fields**
  - Fields used to link objects and to query for linked objects
  - An <sup>x</sup> indicates a particular type of reference that is not (currently) supported by this Noark 5 system but may be supported by other systems.

### Notation

The following notation is used in the tables below:

- **x**
  - denotes *true*
- **sm**
  - denotes *system-managed fields*, i.e. fields that you are not allowed to ever write to regardless of the underlying system
- **c**
  - denotes *conditionally-writable fields*, i.e. fields that may or may not be writable depending on constraints imposed by the underlying system or the Noark 5 standard

## Arkiv

Arkiv													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerIdent	x	x			c	x	x	x			
M602	date	avsluttetDato					c	x	x	x			
M603	string	avsluttetAv					c	x	x	x			
M603	string	avsluttetAvBrukerIdent					c	x	x	x			
M020	string	tittel	x				x	x	x	x			
M021	string	beskrivelse					x	x	x	x			
M050	string	arkivstatus	x	x	x		x	x	x	x			
M300	string	dokumentmedium	x	x	x		x	x	x	x			
Reference fields													
	ref	refArkivskaper	x					x		x			
	ref	refArkivdel						x		x			

## Arkivskaper

Arkivskaper													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerident	x	x			c	x	x	x			
M006	string	arkivskaperIdent	x				x	x	x	x			
M023	string	arkivskaperNavn	x				x	x	x	x			
M021	string	beskrivelse				x	x	x	x				
Reference fields													
	ref	refArkiv	x					x		x			

## Arkivdel

Arkivdel													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				

Regular fields															
M001	string	uuid	x	x			c	x	x						
M600	date	opprettetDato	x	x			c	x	x	x					
M601	string	opprettetAv	x	x			c	x	x	x					
M601	string	opprettetAvBrukerIdent	x	x			c	x	x	x					
M020	string	tittel	x				x	x	x	x					
M021	string	beskrivelse					x	x	x	x					
M051	string	arkivdelstatus	x	x	x		x	x	x	x					
M300	string	dokumentmedium	x	x	x		x	x	x	x					
M107	date	arkivperiodeStartDato					x	x	x	x					
M108	date	arkivperiodeSluttDato					x	x	x	x					
Reference fields															
	ref	refArkiv	x						x		x				
	ref	refPrimaerKlassifikasjonssystem							x		x				
	ref	refMappe							x		x			<ul style="list-style-type: none"><li>references <b>Mappe</b> or <b>Saksmappe</b></li><li>may not be supported by all systems or partially supported</li></ul>	
	ref	refRegistrering							x		x			<ul style="list-style-type: none"><li>references <b>Basisregistrering<sup>6</sup></b> or <b>Journalpost<sup>6</sup></b></li><li>may not be supported by all systems or partially supported</li></ul>	

## Classification

### Klassifikasjonssystem

Klassifikasjonssystem														
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2	
Special fields														
	string	id					sm	x	x	x				
	string	version					sm	x	x					
Regular fields														
M001	string	uuid	x	x			c	x	x					
M600	date	opprettetDato	x	x			c	x	x	x				
M601	string	opprettetAv	x	x			c	x	x	x				
M601	string	opprettetAvBrukerIdent	x	x			c	x	x	x				
M602	date	avsluttetDato					c	x	x	x				
M603	string	avsluttetAv					c	x	x	x				
M603	string	avsluttetAvBrukerIdent					c	x	x	x				
M086	string	klassifikasjonstype					x	x	x	x				
M020	string	tittel	x				x	x	x	x				
M021	string	beskrivelse					x	x	x	x				
Reference fields														
	ref	refKlasse							x		x			
	ref	refArkivdel							x		x			

## Klasse

Klasse														
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2	
Special fields														
	string	id					sm	x	x	x				

	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerId	x	x			c	x	x	x			
M602	date	avsluttetDato					c	x	x	x			
M603	string	avsluttetAv					c	x	x	x			
M603	string	avsluttetAvBrukerId					c	x	x	x			
M002	string	klassident	x				x	x	x	x			
M020	string	tittel	x				x	x	x	x			
M021	string	beskrivelse					x	x	x	x			
Reference fields													
	ref	refKlassifikasjonssystem	x						x		x		
	ref	refForelderKlasse							x		x		
	ref	refBarnKlasse							x		x		
	ref	refMappe							x		x	<ul style="list-style-type: none"> <li>references <b>Mappe</b> or <b>Sa ksmappe</b></li> <li>may not be supported by all systems or partially supported</li> </ul>	<ul style="list-style-type: none"> <li><b>refBarnKlasse</b> cannot be set if either <b>refMappe</b> or <b>refRegistrering</b> is set</li> </ul>
	ref	refRegistrering										<ul style="list-style-type: none"> <li>references <b>Basisregistrering<sup>x</sup></b> or <b>Journalpost<sup>x</sup></b></li> <li>may not be supported by all systems or partially supported</li> </ul>	

## Folders

## Mappe

Mappe													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerId	x	x			c	x	x	x			
M602	date	avsluttetDato					c	x	x	x			
M603	string	avsluttetAv					c	x	x	x			
M603	string	avsluttetAvBrukerId					c	x	x	x			
M003	string	mappident	x	x			c	x	x	x			
	string	mappetype					x	x	x	x			
M020	string	tittel	x				x	x	x	x			
M025	string	offentligTittel					x	x	x	x			
M021	string	beskrivelse					x	x	x	x			
M300	string	dokumentmedium	x	x	x		x	x	x	x			
Reference fields													
	ref	refArkivdel	c						x		x		<ul style="list-style-type: none"> <li>exactly one of <b>refArkivdel</b> and <b>refForelderMappe</b> must be set</li> </ul>
	ref	refForelderMappe	c						x		x	<ul style="list-style-type: none"> <li>references a parent <b>Mappe</b></li> </ul>	
	ref	refBarnMappe							x		x	<ul style="list-style-type: none"> <li>references children <b>Mappe</b></li> </ul>	
	ref	refRegistrering							x		x	<ul style="list-style-type: none"> <li>references <b>Basisregistrering</b> or <b>Journalpost<sup>x</sup></b></li> <li>may be partially supported by systems</li> </ul>	



	ref	refKlasse						x		x		
	ref	refEksternId						x		x		

## Saksmappe

Saksmappe													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerId	x	x			c	x	x	x			
M602	date	avsluttetDato					c	x	x	x			
M603	string	avsluttetAv					c	x	x	x			
M603	string	avsluttetAvBrukerId					c	x	x	x			
M003	string	mappeldent	x	x			c	x	x	x			
M020	string	tittel	x				x	x	x	x			
M025	string	offentligTittel					x	x	x	x			
M021	string	beskrivelse					x	x	x	x			
M300	string	dokumentmedium	x	x	x		x	x	x	x			
M011	number	saksaar	x	x			c	x	x	x			
M012	number	sakssekvensnummer	x	x			c	x	x	x			
M100	date	saksdato	x	x			x	x	x	x			
M305	string	administrativEnhet	x				x	x	x	x			
M306	string	saksansvarlig	x	x			x	x	x	x			
M306	string	saksansvarligBrukerId	x	x			x	x	x	x			
M052	string	saksstatus	x	x	x		x	x	x	x			
Reference fields													
	ref	refArkivdel	x						x		x	<ul style="list-style-type: none"><li>references <b>Basisregistrering</b> or <b>Journalpost</b></li><li>may be partially supported by systems</li></ul>	
	ref	refRegistrering							x		x		
	ref	refSakspart							x		x		
	ref	refKlasse	x						x		x		
	ref	refEksternId							x		x		

## Sakspart

Sakspart													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x				c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerId	x	x			c	x	x	x			
M010	string	sakspartId					x	x	x	x			
M302	string	sakspartNavn	x				x	x	x	x			
M303	string	sakspartRolle	x				x	x	x	x			

	string	foedselsnummer					x	x	x	x			
	string	dnummer					x	x	x	x			
M406	string	postadresse					x	x	x	x			
M407	string	postnummer					x	x	x	x			
M408	string	poststed					x	x	x	x			
M409	string	land					x	x	x	x			
M410	string	epostadresse					x	x	x	x			
M411	string	telefonnummer					x	x	x	x			
M412	string	kontaktperson					x	x	x	x			
Reference fields													
	ref	refMappe	x						x		x	• references <b>Saksmappe</b>	

## Records

## Basisregistrering

Basisregistrering													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerIdent	x	x			c	x	x	x			
M602	date	avsluttetDato					c	x	x	x			
M603	string	avsluttetAv					c	x	x	x			
M603	string	avsluttetAvBrukerIdent					c	x	x	x			
M004	string	registreringsIdent	x	x			c	x	x	x			
M020	string	tittel	x				x	x	x	x			
M025	string	offentligTittel					x	x	x	x			
M021	string	beskrivelse					x	x	x	x			
M024	string	forfatter					x	x	x	x			
M300	string	dokumentmedium	x	x	x		x	x	x	x			
Reference fields													
	ref	refArkivdel	c						x		x	• references <b>Arkivdel</b> <sup>x</sup> • may not be supported by all systems	• exactly one of <b>refArkivdel</b> and <b>refMappe</b> must be set
	ref	refMappe	c						x		x	• references <b>Mappe</b> or <b>Saksmappe</b> • may not be supported by all systems or partially supported	
	ref	refKorrespondansepart							x		x		
	ref	refDokument							x		x		
	ref	refKlasse							x		x		
	ref	refEksternId							x		x		

## Journalpost

Journalpost													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2

Special fields													
	string	id				sm	x	x	x				
	string	version				sm	x	x					
Regular fields													
M001	string	uuid	x	x		c	x	x					
M600	date	opprettetDato	x	x		c	x	x	x				
M601	string	opprettetAv	x	x		c	x	x	x				
M601	string	opprettetAvBrukerId	x	x		c	x	x	x				
M602	date	avsluttetDato				c	x	x	x				
M603	string	avsluttetAv				c	x	x	x				
M603	string	avsluttetAvBrukerId				c	x	x	x				
M004	string	registreringsId	x	x		c	x	x	x				
M020	string	tittel	x			x	x	x	x				
M025	string	offentligTittel				x	x	x	x				
M021	string	beskrivelse				x	x	x	x				
M024	string	forfatter				x	x	x	x				
M300	string	dokumentmedium	x	x	x	x	x	x	x				
M013	number	journalaar	x	x		c	x	x	x				
M014	number	journalsekvensnummer	x	x		c	x	x	x				
M015	number	journalpostnummer	x	x		c	x	x	x				
M082	string	journalposttype	x		x	x	x	x	x				
M053	string	journalstatus	x	x		x	x	x	x				
M101	date	journaldato	x	x		x	x	x	x				
M103	date	dokumentetsDato				x	x	x	x				
M104	date	mottattDato				x	x	x	x				
M105	date	sendtDato				x	x	x	x				
M109	date	forfallsdato				x	x	x	x				
M110	date	offentlighetsvurdertDato				x	x	x	x				
Reference fields													
	ref	refMappe	c					x		x	<ul style="list-style-type: none"><li>references <b>Mappe</b><sup>x</sup> or <b>Saksmappe</b></li><li>may not be supported by all systems or partially supported</li></ul>	<ul style="list-style-type: none"><li>exactly one of <b>refMappe</b> and <b>refArkivdel</b> is required</li></ul>	
	ref	refArkivdel	c					x		x	<ul style="list-style-type: none"><li>references <b>Arkivdel</b><sup>x</sup></li><li>may not be supported by all systems or partially supported</li></ul>		
	ref	refKorrespondansepart	x					x		x			
	ref	refDokument						x		x			
	ref	refKlasse						x		x			
	ref	refEksternId						x		x			

## Korrespondansepart

Korrespondansepart													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id				sm	x	x	x				
	string	version				sm	x	x					
Regular fields													
M001	string	uuid	x	x		c	x	x					
M600	date	opprettetDato	x	x		c	x	x	x				
M601	string	opprettetAv	x	x		c	x	x	x				
M601	string	opprettetAvBrukerIdent	x	x		c	x	x	x				
M087	string	korrespondanseparttype	x		x	x	x	x	x				
M400	string	korrespondansepartNavn	x			x	x	x	x				
	string	foedselsnummer				x	x	x	x				
	string	dnummer				x	x	x	x				
M406	string	postadresse				x	x	x	x				

M407	string	postnummer					x	x	x	x			
M408	string	poststed					x	x	x	x			
M409	string	land					x	x	x	x			
M410	string	epostadresse					x	x	x	x			
M411	string	telefonnummer					x	x	x	x			
M412	string	kontaktperson					x	x	x	x			
Reference fields													
	ref	refRegistrering	x						x		x	<ul style="list-style-type: none"><li>references <b>Basisregistrering</b> or <b>Journalpost</b></li><li>may be partially supported by systems</li></ul>	

## Documents

### Dokument

Dokument													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c			x			
M601	string	opprettetAvBrukerIdent	x	x			c			x			
M083	string	dokumenttype	x				x	x	x	x			
M054	string	dokumentstatus	x	x	x		x	x	x	x			
M020	string	tittel	x				x	x	x	x			
M021	string	beskrivelse					x	x	x	x			
M024	string	forfatter					x	x	x	x			
M300	string	dokumentmedium	x	x	x		x	x	x	x			
M217	string	tilknyttetRegistreringSom	x		x		x	x	x	x			
M007	number	dokumentnummer	x	x			c	x	x	x			
Reference fields													
	ref	refRegistrering	x						x		x	<ul style="list-style-type: none"><li>references <b>Basisregistrering</b> or <b>Journalpost</b></li></ul>	
	ref	refDokumentversjon							x		x		
	ref	refEksternId							x		x		

### Dokumentversjon

Dokumentversjon													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	c	c	x			
M601	string	opprettetAvBrukerIdent	x	x			c	c	c	x			
M005	number	versjonsnummer	x	x			c	x	x	x			

M700	string	variantformat	x				x	x	x	x			
M701	string	format	x				x	x	x	x			
M702	string	formatDetaljer					x	x	x	x			
M705	string	sjekksum					sm	x	x	x			
M706	string	sjekksumAlgoritme					sm	x	x	x			
M707	number	filstoerrelse					sm	x	x	x			
M218	string	referanseDokumentfil	x				x	x	x	x		unique identifier of a document stored in the system	
Reference fields													
	ref	refDokument	x						x		x		

## Other

## EksternId

EksternId													
ID	Type	Field	Not null	Has default	Code list		Save	View	Query	Sort	Link Unlink	Comment 1	Comment 2
Special fields													
	string	id					sm	x	x	x			
	string	version					sm	x	x				
Regular fields													
M001	string	uuid	x	x			c	x	x				
M600	date	opprettetDato	x	x			c	x	x	x			
M601	string	opprettetAv	x	x			c	x	x	x			
M601	string	opprettetAvBrukerIdent	x	x			c	x	x	x			
	string	eksternSystem	x				x	x	x	x			
	string	eksternID	x				x	x	x	x			
Reference fields													
	ref	refMappe	c						x		x	<ul style="list-style-type: none"> <li>references <b>Mappe</b> or <b>Saksmappe</b></li> <li>may be partially supported by systems</li> </ul>	<ul style="list-style-type: none"> <li>exactly one of <b>refMappe</b>, <b>refRegistrering</b>, or <b>refDokument</b> is required</li> </ul>
	ref	refRegistrering	c						x		x	<ul style="list-style-type: none"> <li>references <b>Basisregistrering</b> or <b>Journalpost</b></li> <li>may be partially supported by systems</li> </ul>	
	ref	refDokument	c						x		x		

## Advanced

All record object types (**Basisregistrering**, **Journalpost**) can be collectively referred to as **AbstraktRegistrering**. This name can be used to search for records of all types.

All folder object types (**Mappe**, **Saksmappe**) can be collectively referred to as **AbstraktMappe**. This name can be used to search for folders of all types.

## 03. Code lists

- [Overview](#)
- [Code lists](#)
  - [arkivstatus](#)
  - [arkivdelstatus](#)
  - [saksstatus](#)
  - [journalstatus](#)
  - [dokumentstatus](#)
  - [dokumentmedium](#)
  - [korrespondanseparttype](#)

- [tilknyttetRegistreringSom](#)
- [journalposttype](#)
- [variantformat](#)

## Overview

Several fields in the Noark 5 metamodel can only contain one of a predefined set of values, i.e. a value from a *code list*.

This section defines a set of standard code lists that every Noark 5 system must support. Note, however, that systems are allowed to add new values to any code list, and to add new code lists. Use the [code-lists web service](#) to check if the values that a particular field can take are restricted by a code list.

## Code lists

### arkivstatus

arkivstatus		
Code	Name	Comment
O	Opprettet	
A	Avsluttet	

### arkivdelstatus

arkivdelstatus		
Code	Name	Comment
A	Aktiv periode	
O	Overlappingsperiode	
P	Avsluttet periode	
U	Uaktuelle mapper	

### saksstatus

saksstatus		
Code	Name	Comment
B	Under behandling	
A	Avsluttet	
U	Utgår	
R	Opprettet av saksbehandler	
S	Avsluttet av saksbehandler	
P	Unntatt prosessstyring	
F	Ferdig fra saksbehandler	

### journalstatus

journalstatus		
Code	Name	Comment
J	Journalført	
F	Ferdigstilt fra saksbehandler	
G	Godkjent av leder	
E	Ekspedert	
A	Arkivert	
U	Utgår	
M	Midlertidig registrering av innkommet dokument	
S	Saksbehandler har registrert innkommet dokument	
R	Reservert dokument	

## dokumentstatus

dokumentstatus		
Code	Name	Comment
B	Dokumentet er under redigering	
F	Dokumentet er ferdigstilt	

## dokumentmedium

dokumentmedium		
Code	Name	Comment
E	Elektronisk arkiv	

## korrespondanseparttype

korrespondanseparttype		
Code	Name	Comment
EA	Avsender	
EM	Mottaker	
EK	Kopimottaker	
GM	Gruppemottaker	
IA	Intern avsender	
IM	Intern mottaker	
IK	Intern kopimottaker	

## tilknyttetRegistreringSom

tilknyttetRegistreringSom
---------------------------

Code	Name	Comment
H	Hoveddokument	
V	Vedlegg	

## journalposttype

journalposttype		
Code	Name	Comment
I	Inngående dokument	
U	Utgående dokument	
N	Organinternt dokument for oppfølging	
X	Organinternt dokument uten oppfølging	
S	Saksframlegg	

## variantformat

variantformat		
Code	Name	Comment
P	Produksjonsformat	
A	Arkivformat	

## 04. Web services

- Basic concepts
  - Supported protocols
  - Authentication and authorization
  - HTTP status codes
  - Paths
  - Dates encoding
- Services
  - code-lists
  - query
  - upload
  - transaction
    - save
    - link
    - unlink
    - delete
  - download

### Basic concepts

#### Supported protocols

The web services support the following protocols:

- HTTPS

#### Authentication and authorization

Authentication and authorization are system-specific. The web services require a *Bearer token* to be specified in the HTTP headers when sending



requests, but how the token is obtained and used by the underlying system is beyond this specification.

## HTTP status codes

The following table lists the HTTP status codes used by the web services.

Status code	Definition	Example
200 OK	The request was successful.	HTTP/1.1 200 OK
400 Bad Request	The syntax of the request was invalid.	HTTP/1.1 400 Bad Request
415 Unsupported Media Type	The payload format requested by the client is not supported by the server.	HTTP/1.1 415 Unsupported Media Type
401 Unauthorized	The request was denied due to an invalid or missing access token.	HTTP/1.1 401 Unauthorized WWW-Authenticate: Bearer
403 Forbidden	The request was denied due to the access token having insufficient privileges.	HTTP/1.1 403 Forbidden
404 Not Found	The requested resource does not exist or is not accessible.	HTTP/1.1 404 Not Found
409 Conflict	Data was updated by another client after the last read by this client. The client may retry the request.	HTTP/1.1 409 Conflict
500 Internal Server Error	An internal server error has occurred.	HTTP/1.1 500 Internal Server Error
503 Service Unavailable	The service is temporarily unavailable.	HTTP/1.1 503 Service Unavailable

## Paths

The following is the standard path for Noark 5 web services:

**{system-specific path}/noark5/v{version number}/{service-name}**

Version 1 of the Noark 5 web services in RMS 2.x are available under:

**/rms/api/public/noark5/v1/{service-name}**

Note that all services must remain backwards-compatible even when their version is incremented.

## Dates encoding

- Dates must be encoded as **ISO 8601** strings prior to sending them to the web services.
- Dates are returned by the web services as **ISO 8601** formatted strings.

## Services

Address
http(s)://{server}:{port}/rms/api/public/noark5/v1

## code-lists

Gets all code lists supported by the system, the code lists for a given object type, or the code list for a specific field in a given type.

### Request

```
GET /rms/api/public/noark5/v1/code-lists?type=OBJECT_TYPE&field=FIELD_NAME
HTTP/1.1
Authorization: Bearer ACCESS_TOKEN
Content-Type: application/json
```

#### Details

- **type** (optional)
  - type of object to fetch the code lists for
- **field** (optional)
  - field in the specified type to fetch the code list for

If **type** and **field** are both not specified, the response will contain all code lists supported by the system.

### Response

```
Content-Type: application/json
```

```
{
  "results": [
    {
      "type": string,
      "field": string,
      "values": [
        {
          "code": string,
          "name": string,
          "description": string
        },
        ...
      ]
    },
    ...
  ]
}
```

#### Details

- **results**
  - array of one or more code lists
- **type**
  - object type that this code list applies to
- **field**
  - field in the object type that this code list applies to
- **code**
  - code or short name of the code list value
- **name**
  - user-friendly name of the code list value
- **description**
  - description of the code list value

#### query

Queries for objects of a given type in the Noark 5 system.

### Request

POST /rms/api/public/noark5/v1/query HTTP/1.1

Authorization: Bearer ACCESS\_TOKEN

Content-Type: application/json

```
{
  "type": string,
  "offset": number,
  "limit": number,
  "query": string,
  "parameters":
    {
      string: string|number|date|boolean|null,
      ...
    },
  "sortOrder":
    [
      {
        "field": string,
        "order": string,
      },
      ...
    ]
}
```

### Details

- **type**
  - type of object to search for
- **offset** (optional)
  - offset of first result
  - defaults to 0
- **limit**
  - maximum number of results to retrieve
- **query** (optional)
  - an expression written in the [web services query language](#)
  - defaults to an empty string, i.e. search for all objects of the specified type
- **parameters** (optional)
  - parameter name used in the query : parameter value
- **sortOrder** (optional)
  - defines a sequence of sort order pairs
    - by default objects are sorted by ID in descending order
  - **field**
    - field to sort on
  - **order**
    - sort order (*desc* or *asc*)

## Response

Content-Type: application/json

```
{
  "total": number,
  "results": [
    {
      "type": string,
      "id": string,
      "version": number,
      "fields": {
        string: string|date|number|boolean,
        ...
      }
    },
    ...
  ]
}
```

### Details

- **total**
  - total number of objects matching the query
- **results**
  - objects in the current results page
- **type**
  - object type
- **id**
  - object ID
- **version**
  - version of the object
- **fields**
  - all regular fields (string, date, number, boolean) of the object

## upload

Uploads a file to the system. The system returns a unique ID for the uploaded file.

## Request

```
POST /rms/api/public/noark5/v1/upload HTTP/1.1
Authorization: Bearer ACCESS_TOKEN
Content-Disposition: attachment; filename="ASCII_FILENAME";
filename*=utf-8'UTF8_FILENAME
Content-Type: application/octet-stream

[Binary stream]
```

### Details

- One of **filename** and **filename\*** must be specified
  - **filename** is a fallback if **filename\*** is not specified

See [RFC 6266](#) (description of the Content-Disposition header) and [RFC 5987](#) (description of the encoding used in the filename\* parameter).

The Content-Disposition header must specify at least one of the two parameters filename and filename\*. When both are specified filename\* takes precedence. The original charset of the filename\* parameter value must be UTF-8, while the filename parameter value must be ASCII.

## Response

### Response

Content-Type: application/json

```
{
  "id": string
}
```

#### Details

- **id**
  - the unique ID for the uploaded file

## transaction

Saves (creates or updates), links, unlinks, and deletes objects in a single transaction.

### Request

```
POST /rms/api/public/noark5/v1/transaction HTTP/1.1
Authorization: Bearer ACCESS_TOKEN
Content-Type: application/json
```

```
{
  "actions": [
    {
      "action": string,
      ...
    },
    ...
  ]
}
```

#### Details

- **actions**
  - array of actions to execute (in the order in which they are specified)
- **action**
  - the action to execute: **save**, **link**, **unlink**, **delete**

## Response

Content-Type: application/json

```
{
  "saved": {
    string: {
      ...
    },
    ...
  }
}
```

### Details

- **saved**
  - created or updated objects
    - object ID (from the request) : created or updated object
  - if no objects have been saved, an empty JSON object will be returned

## save

## Request

POST /rms/api/public/noark5/v1/transaction HTTP/1.1

Authorization: Bearer ACCESS\_TOKEN

Content-Type: application/json

```
{
  "actions": [
    {
      "action": "save",
      "type": string,
      "id": string,
      "version": string,
      "fields": {
        string: string|number|date|boolean,
        ...
      }
    },
    ...
  ]
}
```

### Details

- **action**
  - the **save** action
- **type**
  - type of the object to create or update
- **id**
  - the ID of the object you want to create or update
  - if you are creating a new object, this must be a temporary ID (e.g. a UUID) that will be mapped to the ID of the created object

and returned in the response

- **version**
  - object version when updating an existing object (may be used for optimistic locking internally)
- **write** (optional)
  - regular object fields (string, date, number, boolean) to write

### Response

```
{
  "saved": {
    string: {
      "type": string,
      "id": string,
      "version": number,
      "fields": {
        string: string|number|date|boolean,
        ...
      },
      string: { ... },
      ...
    }
  }
}
```

## link

### Request

POST /rms/api/public/noark5/v1/transaction HTTP/1.1

Authorization: Bearer ACCESS\_TOKEN

Content-Type: application/json

```
{
  "actions": [
    {
      "action": "link",
      "type": string,
      "id": string,
      "ref": string,
      "linkToId": [string]
    },
    ...
  ]
}
```

#### Details

- **action**
  - the **link** action
- **type**
  - type of the object to link to other object(s)
- **id**

- temporary or real ID of the object to link to other object(s)
- **ref**
  - link to one or more objects using the name of a reference field in this object
- **linkToId**
  - temporary or real ID(s) of object(s) to link to

## unlink

### Request

```
POST /rms/api/public/noark5/v1/transaction HTTP/1.1
Authorization: Bearer ACCESS_TOKEN
Content-Type: application/json
```

```
{
  "actions": [
    {
      "action": "unlink",
      "type": string,
      "id": string,
      "ref": string,
      "unlinkFromId": [string]
    },
    ...
  ]
}
```

### Details

- **action**
  - the **unlink** action
- **type**
  - type of the object to unlink from other object(s)
- **id**
  - real ID of the object to unlink from other object(s)
- **ref**
  - unlink from one or more other objects using the name of a reference field in this object
- **unlinkFromId**
  - real ID(s) of object(s) to unlink from

## delete



### Request

```
POST /rms/api/public/noark5/v1/transaction HTTP/1.1
Authorization: Bearer ACCESS_TOKEN
Content-Type: application/json
```

```
{
  "actions": [
    {
      "action": "delete",
      "type": string,
      "id": string,
      "version": string
    },
    ...
  ]
}
```

#### Details

- **action**
  - the **delete** action
- **type**
  - type of the object to delete
- **id**
  - real ID of the object to delete
- **version** (optional)
  - the fetched version of the object to delete (may be used internally for optimistic locking)

### download

Downloads the file with the specified ID. If the file is not registered in a records management structure, no access control limitations will apply and only the creator (uploader) of the file will be able to download it. Once the file has been registered, standard access control will apply.

### Request

```
GET /rms/api/public/noark5/v1/download?id=DOCUMENT_ID HTTP/1.1
Authorization: Bearer ACCESS_TOKEN
```

#### Details

- Downloads the file with the specified document ID

### Response

```
Content-Type: */*
```

```
Binary content
```

## 05. Query language

- [Overview](#)
- [Fields](#)
- [Expressions](#)
  - [Simple expressions](#)
  - [Range expressions](#)
- [Grouping expressions](#)
- [Examples](#)

## Overview

The web services support a simple but powerful query language that allows one to query for objects of a particular type, specifying **criteria** on the **object fields** as well as **criteria on the fields of linked objects**.

## Fields

The [metadata model exposed by the web services](#) defines three groups of fields (special, regular, and reference fields) and specifies which fields can be queried. The following table shows examples of how you can use fields when querying for objects:

Query for	What field to use	Comment
<b>Mappe</b> with a specific <b>id</b>	id	Only exact matching is supported for special fields.
<b>Mappe</b> with a specific <b>tittel</b>	tittel	Different types of criteria can be specified on regular fields.
<b>Mappe</b> in a specific <b>Arkivdel</b>	refArkivdel	The <b>id</b> of a linked object is the only type of criterion one can specify on a reference field.
<b>Mappe</b> in an <b>Arkivdel</b> with a specific <b>tittel</b>	refArkivdel.tittel	Chaining via reference fields allows us to specify criteria on regular fields in linked objects.
<b>Mappe</b> in an <b>Arkiv</b> with a specific <b>tittel</b>	refArkivdel.refArkiv.tittel	More than one level of reference field chaining is allowed. Note that systems may decide to define a threshold.

## Expressions

An expression consists of a *field*, an *operator*, and one or two *parameters*.

Parameter values are not a part of the query and must match the data type of the field for which a criterion is specified.

### Simple expressions

The following table shows the supported simple expressions:

Expression	Supported field data types	Meaning	Comment
field = @param1	string, integer, reference	A field is equal to the value of the specified parameter.	
field != @param2	string, integer, reference	A field is not equal to the value of the specified parameter.	
field %= @param3	string	A field is like the value of the specified parameter.	A % sign in the parameter value denotes <i>any character</i> .

### Range expressions

The following table shows the supported range expressions:

Expression	Supported field data types	Meaning	Comment
field = [@param1:@param2]	date, number	The value of a field is within the (inclusive) range defined by the two parameters.	A left/right square bracket defines the start/end of an inclusive range.

field = {@param1:@param2}	date, number	The value of a field is within the (exclusive) range defined by the two parameters.	A left/right curly bracket defines the start/end of an exclusive range.
field = [@param1:@param2]	date, number	The value of a field is within the range defined by the two parameters.	Start is inclusive, end is exclusive.
field = {@param1:@param2]	date, number	The value of a field is within the range defined by the two parameters.	Start is exclusive, end is inclusive.
A * character in the parameter value denotes <i>any value</i> .			

## Grouping expressions

Expressions can be grouped using boolean operators, which are listed in the following table:

Operator	Meaning	Precedence	Example
&&	Logical AND	1st	expression1 && expression2
	Logical OR	2nd	expression1    expression2

The order of precedence can be changed using parentheses:

Operator	Meaning	Example
( )	Change the order of precedence of boolean operators	(expression1    expression2) && expression3

## Examples

Search for	Query	Parameter value	Comment
<b>Saksmappe</b> with a given <b>id</b>	id = @id	100	100 is the <b>id</b> of the <b>Saksmappe</b>
<b>Saksmappe</b> with an exact <b>tittel</b>	tittel = @tittel	"Mappe"	
<b>Saksmappe</b> with a <b>tittel</b> not equal to	tittel != @tittel	"Mappe"	
<b>Saksmappe</b> with a <b>tittel</b> that starts with	tittel %= @tittel	"Map%"	
<b>Saksmappe</b> with a <b>tittel</b> that ends with	tittel %= @tittel	"%appe"	
<b>Saksmappe</b> with a <b>tittel</b> that contains a string	tittel %= @tittel	"%app%"	
<b>Saksmappe</b> with a <b>saksaar</b> within a particular range	saksaar=[@start:@end]	2015 2017	<b>Saksmapper</b> created in 2015, 2016, and 2017
<b>Saksmappe</b> with a <b>saksaar</b> within a particular range	saksaar={@start:@end}	2015 2017	<b>Saksmapper</b> created in 2016
<b>Saksmappe</b> with a <b>saksaar</b> within a particular range	saksaar=[@start:@end]	2015 2017	<b>Saksmapper</b> created in 2015 and 2016
<b>Saksmappe</b> with a <b>saksaar</b> within a particular range	saksaar={@start:@end]	2015 2017	<b>Saksmapper</b> created in 2016 and 2017
<b>Saksmappe</b> in a specific <b>Arkivdel</b>	refArkivdel.id = @refArkivdel	10	10 is the <b>id</b> of the <b>Arkivdel</b>
<b>Saksmappe</b> in a specific <b>Arkiv</b>	refArkivdel.refArkiv.id = @refArkiv	5	5 is the <b>id</b> of the <b>Arkiv</b>
<b>Saksmappe</b> in an <b>Arkiv</b> with a specific <b>tittel</b>	refArkivdel.refArkiv.tittel = @arkivTittel	"Arkiv"	